

**In the Drawings**

Applicants submit concurrently herewith, ten (10) **Replacement Sheets**, Figures 1-8. The enclosed **Replacement Sheets** supersede the original drawings filed by Applicants on March 1, 2004.

## REMARKS

This application has been carefully considered in connection with the Examiner's Office Action dated June 1, 2007. Reconsideration and allowance are respectfully requested in view of the following.

**Summary of Rejections**

Claims 1-20 were pending at the time of the Office Action.

Claims 3, 5-10, 12, 13-15, 19 and 20 were rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention

Claims 1-10 were rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1, 2, 4, 11, and 16-17 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. patent No. 6,940,802 B1 to Barnes et al. (hereinafter "Barnes").

Claims 5-10, 12-15, and 18-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent No. 6,950,802 B1 to Barnes et al., in view of "The TeleManagement Forum's Enhanced Telecom Operations Map (eTOM)", by Michael B. Kell (March 2003) (hereinafter "Kelly").

Claim 3 was rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent No. 6,950,802 B1 to Barnes et al., in view of U. S. Patent Application Publication 200/0154695 A1 to Gonzalez et al. (hereinafter "Gonzalez").

**Summary of Response**

Claims 1-5 and 7-20 are amended by the present response.

Claim 6 remains as originally filed.

The drawings have been amended.

The specification has been amended.

Remarks and Arguments are provided below.

**Summary of Claims Pending**

Claims 1-20 are currently pending following this response.

**Specification**

The specification has been amended. Specifically, paragraphs [0013], [0015], [0016], [0042], [0044], [0047], [0051] and [0054] and the Abstract have been amended to correct typographical errors. The amendments to the specification are respectfully submitted not to introduce new matter, and are offered for clarification purposes.

**Drawings**

The drawings have been amended. Figure 4B has been amended to add reference number 234 corresponding to the system use case specification window. Support for this amendment can be found in paragraph [0045] of the specification. Corrected drawing sheets labeled "Replacement Sheet" are filed concurrently herewith.

**Interview Summary**

Applicants thank Primary Examiner Steelman for her time and consideration of the arguments presented in the telephone interview on July 24, 2007. In the interview the proposed claim limitations to Claim 1, including more specifically the proposed claim limitations to a modeling tool, an integration component, and a state diagram component, were discussed. Primary Examiner Steelman suggested amending the claims to further clarify the modeling tool, the integration component, and the state diagram component. Claim 1 has been amended herein to further clarify the modeling tool, the integration component, and the state diagram component. Claims 11 and 16 also have been amended herein to further clarify the claim limitations and in an effort to advance prosecution.

Additionally, in the interview the proposed claim limitations involving the use of trademarks/trade names to Claims 3, 5, 7-8, 12-13 and 19-20 were discussed. Primary Examiner Steelman suggested amending the claims to not include any trademark/trade name. Claims 3, 5, 7-8, 12-13 and 19-20 have been amended herein to not include any trademark/trade name.

**Response to Rejections**

The disclosure is related to building use cases and related state activity diagrams using business activities defined by the enhanced Telecom Operations Map (eTOM). As disclosed in paragraph 0031, the eTOM provides a useful guide when building new systems, as a check on whether the normal business activities and functions are supported by the new system. The eTOM may also provide a useful tool for examining the operations of a telecommunications company from an external viewpoint. Building use cases and state activity diagrams using

business activities defined by eTOM provides a standardized framework through which the use cases and state activity diagrams may be built. This standardized framework may aid developers in ensuring that the corporate software development process is adhered to.

The use cases may be built by selecting business activities defined by eTOM that have been mapped to one of three use case levels, which include a scope use case level, a process use case level, and a system integration use case level. As disclosed in paragraph 0034, use case models may be built comprising all the scope use cases, the process use cases, and the system integration use cases. Looking to paragraph 0032, this ability to identify and define processes of a project at multiple levels of detail, including the scope level, the process level, and the system integration level, is useful especially early in a project when the project lacks sufficient details.

The eTOM defines a hierarchical relationship between business activities. This hierarchical relationship divides the business activities into four levels, which include eTOM level 0, eTOM level 1, eTOM level 2, and eTOM level 3. The business activities categorized under the eTOM level 1 may be mapped to the scope use case level, the business activities categorized under the eTOM levels 1 and 2 may be mapped to the process use case level, and the business activities categorized under the eTOM levels 2 and 3 may be mapped to the system integration use case level. Once the mapping occurs, a scope use case may be built by selecting the business activities defined by eTOM that have been mapped to the scope use case level, a business process use case may be built by selecting business activities defined by eTOM that have been mapped to the process use case level, and a system integration use case may be built by selecting business activities defined by eTOM that have been mapped to the system integration use case level. Therefore, the mapping of business activities from the hierarchical

relationship defined by eTOM to the scope, process, and system integration levels enables a developer to identify and define processes of a project at multiple levels of detail while adhering to a standardized framework of business activity definitions and descriptions.

State activity diagrams may be built by selecting business activities that have been mapped to one of the use case levels. The eTOM defines the business activities according to domains of a business. Thus, when a state activity diagram is built, the selected business activities may be placed in their appropriate business domain as defined by eTOM. For example, in Fig. 6 of the disclosure, each column may represent a different business domain. This enables an analyst or a business person to see when a business domain boundary has been crossed and can alert them to possibility of the presence of system interfaces. As described in paragraph 0032, this division of business domains may be seen even early in a project when boundaries would normally remain vaguely defined. The state activity diagram also displays the selected business activities as a directionally linked sequence. Thus, the state activity diagram gives a dynamic view of the behavior of the system.

Barnes is related to a system for providing integrated system solutions. The system includes a set of process descriptions, a set of work product descriptions, and engagement models, wherein the engagement models collect the process descriptions and work product descriptions into a model for implementing typical projects addressing marketplace requirements. As disclosed in column 1, lines 19-22, Barnes is intended to solve the problem of having two development teams, even though working on the same problem, generate very inconsistent system solutions when only system requirements and a standard development process are provided. Thus, as disclosed in column 1, lines 25-28, Barnes is directed to a system

development process that will enable consistency of solution design and delivery that span different engagements by different development teams. Applicants respectfully submit that Barnes does not disclose building uses cases or related state activity diagrams by selecting business activities that have been mapped to a use case level. These and other arguments are discussed in detail below.

#### **Response to Rejections under Section 112**

Claims 3, 5-10, 12-15, and 19-20 were rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, claim 3 contains the trademark/trade name Rational Rose® and claims 5, 7, 8, 12, 13, 19 and 20 contain the trademark/trade name eTOM™. Applicants amended claims 3 to not include the trademark/trade name Rational Rose® and claims 5, 7, 8, 12, 13, 19 and 20 to not include the trademark/trade name eTOM™. Applicants respectfully request withdrawal of this rejection.

#### **Response to Rejections under Section 101**

Claims 1-10 were rejected Under 35 USC § 101 as being directed to non-statutory subject matter. Applicants amended claim 1 to recite that the system is “embodied in a computer readable medium”. Applicants respectfully submit that claim 1 includes hardware to enable the functionality. Dependent Claims 2-10 depend directly or indirectly from independent Claim 1 and incorporate all of the limitations thereof. Accordingly, dependent Claims 2-10 are similarly directed to statutory subject matter. Applicants respectfully request withdrawal of this rejection.

**Response to Rejections under Section 102**

Claims 1, 2, 4, 11 and 16-17 were rejected under 35 USC 102(e) as being anticipated by U.S. Patent No. 6,905,802 B1 to Barnes et al. (hereinafter "Barnes").

**Claim 1:**

I. The organization domain disclosed in Barnes is not an integration component that maps the business activities from their hierarchical relationship to the software use case hierarchical relationship.

Applicants have amended Claim 1 to recite "mapping the plurality of business activities from the hierarchical relationship to a software use case hierarchical relationship, wherein the software use case hierarchical relationship includes a plurality of software uses case levels, and wherein each of the plurality of business activities corresponds to one of the plurality of software use case levels". Support for this amendment can be found, for example, in paragraph 0034 of the disclosure.

The Office Action suggests that column 4, lines 54-67 disclose an integration component. However, Applicants are unable to locate any teaching of **mapping** the business activities from their hierarchical relationship to the software use case hierarchical relationship.

Furthermore, the Office Action suggests that column 6, lines 13-48 disclose the hierarchical relationship of the business activities. Column 6, lines 13-48 recites in part that "this hierarchy is known as a work breakdown structure...highest level, phase 116, intermediate level, activity 118, lowest level, task 120". Also, the main discussion of use cases in Barnes can be found in column 8, line 62 through column 9, line 9. However there is no mention in Barnes of a

**hierarchy of software use cases** or a plurality of use case levels. Therefore, Applicants respectfully submit that Barnes does not to disclose **mapping** the business activities from their hierarchical relationship **to the software use case hierarchical relationship** because Barnes does not disclose any hierarchical relationship for use cases.

Accordingly, Applicants respectfully submit that Barnes does not disclose an integration component that maps the business activities from their hierarchical relationship to the software use case hierarchical relationship.

Mapping the business activities from their hierarchical relationship to the software hierarchical relationship for use cases allows software use cases to be built using the typical business activities observed by telecommunications companies provided by eTOM. Also, mapping the business activities from their hierarchical relationship to the software hierarchical relationship for use cases, which includes a process level, a scope level, and a system integration level, allows a project to be described at multiple levels of detail, which would be useful, for example, early in a project when the project lacks sufficient details.

II. The business domain disclosed in Barnes is not a modeling tool building a software use case based on a business requirement by selecting at least one of the plurality of business activities mapped to at least one of the plurality of software use case levels.

Applicants have amended Claim 1 to recite “a modeling tool building a software use case based on a business requirement by selecting at least one of the plurality of business activities mapped to at least one of the plurality of software use case levels”. Support for this amendment can be found, for example, in paragraphs 0039, 0041, and 0044 of the disclosure.

The Office Action suggests that FIG. 1 and column 4, lines 32-41 disclose a modeling tool operable to build use cases based on a business requirement. Additionally, as discussed above, the main discussion of use cases in Barnes can be found in column 8, line 62 through column 9, line 9. However, Applicants are unable to locate any teaching of a modeling tool **building** a software use case. Additionally, Applicants are unable to locate any teach of a modeling tool building a software use case by **selecting** a first set of the plurality of **business activities**. As discussed above, the Office Action suggests that column 6, lines 13-48 disclose the business activities in a hierarchical relationship. However, Applicants respectfully submit that Barnes does not disclose building a use case by selecting a business activity from the phase 116 level, the activity 118 level, or the task 120 level.

Furthermore, as discussed above, Applicants respectfully submit that Barnes does not disclose **mapping** the business activities from their hierarchical relationship **to the software use case hierarchical relationship** because Barnes does not disclose any hierarchical relationship for use cases. Thus, Applicants respectfully submit that Barnes does not disclose a modeling tool building a software use case based on a business requirement by **selecting** a first set of the plurality of **business activities mapped to** at least one of **the plurality of software use case levels** because Barnes does not disclose mapping the business activities to software use case levels.

Accordingly, Applicants respectfully submit that Barnes does not disclose a modeling tool building a software use case based on a business requirement by selecting at least one of the plurality of business activities mapped to at least one of the plurality of software use case levels.

III. The architectural template disclosed in Barnes is not a state diagram component building a state activity diagram by selecting a second set of the plurality of business activities mapped to at least one of the plurality of software use case levels, wherein the state activity diagram displays the selected business activities as a directionally linked sequence.

Applicants have amended Claim 1 to recite “the state diagram component building a state activity diagram for at least a portion of the business requirement by selecting a second set of the plurality of business activities mapped to at least one of the plurality of software use case levels, wherein the state activity diagram displays the second set of selected business activities as a directionally linked sequence”. Support for this amendment can be found, for example, in paragraphs 0051 and 0052 and in Figure 6.

The Office Action suggests that column 10, lines 31-38 disclose a state diagram component or more specifically, a state diagram. Column 10, lines 31-38 recites in part that “an overview of the system, in the form of a layered representation, can be derived from the classes that participate in these typical collaborations” and that “such layered representations take the structure of an informal picture accompanied by free format text”. However, the “layered representation” that takes the form of an “informal picture” disclosed in Barnes does not display the selected business activities as a **directionally linked sequence**.

Additionally, Applicants are unable to locate any teaching of a state diagram component **building** a state activity diagram. Furthermore, Applicants are unable to locate any teaching of a state diagram component building a state activity diagram by **selecting** a second set of the plurality of **business activities**. As discussed above, the Office Action suggests that column 6,

lines 13-48 disclose the business activities in a hierarchical relationship. However, Applicants respectfully submit that Barnes does not disclose building a state activity diagram by selecting a business activity from the phase 116 level, the activity 118 level, or the task 120 level.

Furthermore, as discussed above, Applicants respectfully submit that Barnes does not disclose **mapping** the business activities from their hierarchical relationship **to the software use case hierarchical relationship** because Barnes does not disclose any hierarchical relationship for use cases. Thus, Applicants respectfully submit that Barnes does not disclose a state diagram component building a state activity diagram for at least a portion of the business requirement by **selecting** a second set of the plurality of **business activities mapped to** at least one of **the plurality of software use case levels** because Barnes does not disclose mapping the business activities to software use case levels.

Accordingly, Applicants respectfully submit that Barnes does not disclose a state diagram component building a state activity diagram by selecting a second set of the plurality of business activities mapped to at least one of the plurality of software use case levels, wherein the state activity diagram displays the selected business activities as a directionally linked sequence.

For at least the reasons established above in sections I-III, Applicants respectfully submit that independent Claim 1 is not anticipated by Barnes and respectfully request allowance of this claim.

Dependent Claims 2 and 4 depend directly or indirectly from independent Claim 1 and incorporate all of the limitations thereof. Accordingly, for at least the reasons established in sections I-III above, Applicants respectfully submit that Claims 2 and 4 are not anticipated by Barnes and respectfully request allowance of these claims.

**Claim 11:**

Independent Claim 11 includes limitations similar to limitations of independent Claim 1. Accordingly, the arguments of section I and III are herein repeated for independent Claim 11.

**Claim 16:**

Independent Claim 16 includes limitations similar to limitations of independent Claim 1. Accordingly, the arguments of sections I and II are herein repeated for independent Claim 16.

Dependent Claim 17 depends directly or indirectly from independent Claim 16 and incorporates all of the limitations thereof. Accordingly, for at least the reasons established in sections I and II above, Applicants respectfully submit that Claim 17 is not anticipated by Barnes and respectfully request allowance of these claims.

**Response to Rejections under Section 103**

Claims 5-10, 12-15, and 18-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent No. 6,950,802 B1 to Barnes et al., in view of “The TeleManagement Forum’s Enhanced Telecom Operations Map (eTOM)”, by Michael B. Kelly (March 2003) (hereinafter “Kelly”).

**Claims Depending from Claim 1:**

Dependent Claims 5-10 depend directly or indirectly from independent Claim 1 and incorporate all of the limitations thereof. Accordingly, for at least the reasons established in sections I-III above, Applicants respectfully submit that Claims 5-10 are not taught or suggested by Barnes in view of Kelly and respectfully request allowance of these claims. Applicants respectfully submit that Kelly does not cure the deficiencies of Barnes.

**Claims Depending from Claim 11:**

Dependent Claims 12-15 depend directly or indirectly from independent Claim 11 and incorporate all of the limitations thereof. Accordingly, for at least the reasons established in sections I and III above, Applicants respectfully submit that Claims 12-15 are not taught or suggested by Barnes in view of Kelly and respectfully request allowance of these claims. Applicants respectfully submit that Kelly does not cure the deficiencies of Barnes.

**Claims Depending from Claim 16:**

Dependent Claims 18-20 depend directly or indirectly from independent Claim 16 and incorporate all of the limitations thereof. Accordingly, for at least the reasons established in sections I and II above, Applicants respectfully submit that Claims 18-20 are not taught or

suggested by Barnes in view of Kelly and respectfully request allowance of these claims. Applicants respectfully submit that Kelly does not cure the deficiencies of Barnes.

Claim 3 was rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent No. 6,950,802 B1 to Barnes et al., in view of U. S. Patent Application Publication 200/0154695 A1 to Gonzalez et al. (hereinafter "Gonzalez").

**Claims Depending from Claim 1:**

Dependent Claim 3 depends directly or indirectly from independent Claim 1 and incorporates all of the limitations thereof. Accordingly, for at least the reasons established in sections I-III above, Applicants respectfully submit that Claim 3 is not taught or suggested by Barnes in view of Gonzales and respectfully request allowance of these claims. Applicants respectfully submit that Gonzalez does not cure the deficiencies of Barnes.


**Conclusion**

Applicants respectfully submit that the present application is in condition for full allowance for the reasons stated above, and Applicants respectfully request such allowance. If the Examiner has any questions or comments or feels it would be helpful in expediting the application, the Examiner is encouraged to telephone the undersigned at (972) 731-2288. The Commissioner is hereby authorized to charge payment of any further fees associated with any of the foregoing papers submitted herewith, or to credit any overpayment thereof, to Deposit Account No. 21-0765, Sprint.

Respectfully submitted,

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